

Conclusions: Bacteremia can have several consequences. Infection control practitioner should always keep alert when they find unusual infection.

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ANTIMICROBIAL SUSCEPTIBILITY OF RESPIRATORY INFECTION AMONG HOSPITALIZED PATIENTS FROM LONG-TERM CARE FACILITIES IN SOUTHERN TAIWAN

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Purpose: Previous studies focused on the surveillance of infections in long-term care facilities (LTCFs). This study aims to investigate the clinical characteristics, pathogens and antimicrobial susceptibility from LTCF residents who were hospitalized due to urinary tract infections (UTIs).

Methods: Patients from the LTCFs that were sent to emergency room (ER) due to diagnosis of UTIs were enrolled. Clinical information including demographic data, co-morbid conditions, functional status, catheterization status, will be collected. The cultured gram-negative rods from urine and their susceptibility results by disc diffusion methods were also obtained.

Results: A total of 340 patients were enrolled between February and November 2013. Among these patients, 208 (61.2%) were male, mean age was 76.0 years (range, 22-97 years), 261 were totally dependent in ADLs and 116 patients (34.1%) used urinary catheters. Antimicrobial susceptibility of the isolates was shown on Table. Extended-spectrum beta-lactamase producers accounted for about 40% of *E. coli* and *K. pneumoniae*. The non-ESBL isolates showed lower percentage of susceptibility to cephalosporins, fluoroquinolones and sulfonamides. *P. aeruginosa* also showed high percentage of resistance to fluoroquinolones.

Conclusions: Our findings highlight resistance to commonly used antimicrobial agents among LTCF residents with UTIs, especially to fluoroquinolones. Empirical antimicrobial therapy might be optimized in these patients.

Results: A total of 482 patients with nBSIs were included in the study period. The incidence rate was 5.7/1 000 admissions. *Escherichia coli* (25.5%) was the most common Gram-negative and *Coagulase-negative Staphylococcus* (CoNS) (14.1%) was the most common Gram-positive organism isolated. One-third of the *E. coli* and *Klebsiella pneumoniae* isolated from the nBSIs were third-generation cephalosporin-resistant. Septic shock, hemodialysis, Pitt bacteremia score >4, urinary tract infection and appropriate empirical therapy were most strongly associated with 28-d mortality (Table).

Conclusions: The incidence of nBSIs was low in the TCM hospital but the proportion of nBSIs due to antibiotic-resistant organisms requires more attention. Efficient control methods are needed to decrease antibiotic drug resistance and to improve the quality of empirical therapy in patients with suspected nBSIs.

Table Multivariate logistic regression analysis of mortality at 28-d.

Risk factors	Adjusted odds ratio (95% CI)	P value
Septic shock	2.77(1.27 to 6.02)	0.010
Central venous catheter	2.37(0.71 to 7.92)	0.161
Urinary catheter	1.75(0.79 to 3.87)	0.167
Ventilator	0.77(.23 to 2.52)	0.664
Hemodialysis	3.29(1.30 to 8.34)	0.012
Parenteral nutrition	1.44(0.72 to 2.87)	0.300
Appropriate empirical therapy	0.23(0.10 to 0.56)	0.001
Pitt bacteremia score		
0-1	1	
2-4	0.45(0.11 to 1.82)	0.261
>4	12.88(5.583 to 29.70)	<0.001
Source of infection		
Central venous catheter	1	
Abdominal infection	1.07(.47 to 2.45)	0.872
Urinary tract infection	11.12(2.97 to 41.71)	<0.001
Pulmonary infection	0.29(0.08 to 1.02)	0.053
Others or unknown	2.47(0.87 to 7.05)	0.090

Table. Susceptibility of gram-negative isolates from urine cultures (PS 1-208).

Pathogens	AM	AMC	GM	CZ	CXM	CRO	CFM	MXF	LVX	ETP	SXT
<i>Escherichia coli</i> (54), non-ESBL	5 (9%)	25 (46%)	38 (70%)	28 (50%)	31 (57%)	33 (61%)	29 (54%)	23 (43%)	23 (43%)	48 (89%)	20 (37%)
<i>Klebsiella pneumoniae</i> (19), non-ESBL	0 (0%)	5 (26%)	10 (53%)	7 (37%)	11 (58%)	14 (74%)	10 (53%)	8 (42%)	8 (42%)	18 (95%)	6 (32%)
<i>Proteus mirabilis</i> (10), non-ESBL	4 (40%)	8 (80%)	4 (40%)	6 (60%)	8 (80%)	8 (80%)	8 (80%)	1 (10%)	3 (30%)	9 (90%)	0 (0%)
Urine	PIP	TZP	CAZ	FEP	ATM	IPM	MEM	GM	AN	CIP	LVX
<i>Pseudomonas aeruginosa</i> (36)	22 (61%)	25 (69%)	27 (75%)	29 (81%)	20 (56%)	30 (83%)	29 (81%)	21 (58%)	31 (86%)	7 (19%)	8 (22%)

*Abbreviation : AM= ampicillin; AMC= amoxicillin-clavulanate; AN= amikacin; ATM= aztreonam; CAZ= ceftazidime; CIP= ciprofloxacin; CLR= clarithromycin; CRO= ceftriaxone; CXM= cefuroxime; CZ= cefazolin; ETP= ertapenem; FEP= cefepime; GM= gentamicin; IPM= imipenem; LVX= levofloxacin; MEM= meropenem; MXF= moxifloxacin; PIP= piperacillin; SAM= ampicillin-sulbactam; SXT= Trimethoprim-sulfamethoxazole; TZP= piperacillin-tazobactam

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EPIDEMIOLOGY AND MICROBIOLOGY OF NOSOCOMIAL BLOODSTREAM INFECTIONS IN A TRADITIONAL CHINESE MEDICINE HOSPITAL: ANALYSIS OF 482 CASES FROM A RETROSPECTIVE SURVEILLANCE STUDY

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Purpose: This study was performed to evaluate the epidemiological features of nosocomial bloodstream infections (nBSIs) in a tertiary Traditional Chinese Medicine (TCM) hospital, in order to describe the characteristics of the species distribution and to identify the factors influencing mortality.

Methods: A retrospective surveillance study was undertaken to examine the epidemiology and microbiology of nBSIs in a TCM hospital from 2009 to 2011.

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THE RISK FACTORS OF HEALTHCARE-ASSOCIATED BLOODSTREAM INFECTIONS AMONG OLDER ADULTS IN MEDICAL INTENSIVE CARE UNIT

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Purpose: The advancement of medical technology has made people living longer than ever. In Taiwan, every one in ten is elderly currently. The most risk factor of bloodstream infections in the intensive care unit (ICU) is aging, which can increase the rate of mortality and the length of hospitalization.

Methods: The objectives of this study were to identify the risk factors of bloodstream infections in the intensive care unit among elderly as well as